October 21, 2008

Mr. Jeffrey Byron
Presiding Member of the 2008
Integrated Energy Policy Report
CALIFORNIA ENERGY COMMISSION
RE: DOCKET NOS. 07-AB-1632 & 08-IEP-1F
1516 - 9th Street, MS4
Sacramento, CA 95814-5512

Re: CEC-100-2008-008-CTD
AB 1632 Assessment

Dear Commissioner Byron:

I am an attorney at law practicing in Nevada City, California. From 1983 to the present I have regularly participated as a litigating intervenor at the California Public Utilities Commission ("CPUC") in hearings on the cost of nuclear power plant decommissioning. I have read the draft consultant report, AB 1632 Assessment of California Nuclear Plants, and I have read the 2008 Integrated Energy Policy Report Update, Draft Committee Report (Report), and offer the following comments. (See comments attached.)

Overall, these two reports are invaluable resources that thoroughly address the complex energy issues that California now faces and will continue to face in the future.

Thank you for allowing me to comment in writing on these nuanced issues, as I will be unable to attend the workshops and hearings on these matters due to prior commitments.

Very Truly Yours,

SCOTT L. FIELDER
Attorney at Law

SLF:lkb

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COMMENTS OF SCOTT L. FIELDER ON THE 2008 IEPR UPDATE, DRAFT COMMITTEE REPORT

A. The Report Should Recommend that More Detailed Study be Carried Out Regarding the Impact of the Cost of Disposal of Low Level Radioactive Waste (LLRW) Will Have on the Continued Operation and Re-Licensing of Nuclear Power Plants in California.

The draft consultant report states at pp. 237 and 238 that a 2004 GAO report noted that LLRW disposal cost has increased from $1 to $400 per cubic foot over the last 25 years and could soon exceed $1000 per cubic foot.[1] PG&E has estimated that LLRW disposal cost based on a $248 per cubic foot for waste disposal during decommissioning of Diablo Canyon would cost $242 million. However, this cost would increase to $438 million if the current waste disposal cost of $450 per cubic foot is used, or $974 million if the GAO estimated future cost of $1000 per cubic foot is used. Unfortunately these figures are all probably too low due to the recent closure to California nuclear power plants of the Barnwell, South Carolina LLRW disposal facility. The closure of the Barnwell facility means that there is now no facility in which to bury B, C, and greater than C, waste for California utilities. Since July 2008 the only place for California utilities to dispose of even Class A waste has been Energy Solutions in Utah. Energy Solutions cannot take B, C, or greater than C waste.

In the absence of an available facility to dispose of all categories of California's LLRW, California will now be required to help pay to build a Southwestern Compact LLRW facility similar to the facility that California attempted to build at Ward Valley. After such a facility is built, California nuclear power plants would be required by law to send all of their LLRW to that facility. (See Kapus 59:25-60:1.)

The cost of disposal of Class A LLRW at a Southwest Compact facility could run as high as $1000 to $2500 per cubic foot.[2] This

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[1] The page number in citation 638 is inaccurate. The estimated cost increases for Diablo Canyon decommissioning are not on that page. The source for those numbers is unknown and is being investigated by Energy Commission staff.

[2] *Excess Capacity for the Disposal of Low-Level Radioactive Waste in the United States Means New Company Sites Are Not Needed,* F. Gregory Hayden, Ph.D., Nebraska Commissioner, Central Interstate Low-Level Radioactive Waste Compact Commission,

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could easily result in billions of dollars of new decommissioning costs to California nuclear power plants.

The Report does acknowledge in a bullet point at page 87 the closure of the Barnwell facility, but fails to address the issue of the impact on LLRW costs that will result when California is forced to help pay to build and then use a Southwest Compact LLRW disposal facility. I request that the report be amended to include this as a finding and request that the Commission recommend the further study of the impact of this additional cost on the economic viability of California nuclear power plants.

B. The Commission Should Issue a Specific Recommendation That The Cost of Retrofitting Once Through Cooling (OTC) To On-Shore Cooling Be Studied.

At page 83 of the Report the Commission acknowledges that Diablo Canyon and the SONGS nuclear power plants may be required to retrofit their once-through cooling systems before licensing renewal and that this retrofit and outages are expected to cost a net present value of $2.6 billion at SONGS and $3.0 billion at Diablo Canyon. Current trends in California strongly suggest that this change in law will occur within five years. This additional new cost is likely to seriously undercut the economic viability of re-licensing Diablo Canyon and SONGS. Therefore, I request that the Commission include in its Report a specific recommendation that further study be carried out to assess the impact of the cost of OTC retrofitting on re-licensing of these plants.

C. The Report Should Include in Its Recommendation of Further Study of Power Generation Options Scenarios, the Modeling of a Combination of Natural Gas-Fired Plants and Large Scale Renewable Units.

After half-a-century, nuclear power still has yet to solve many if not most of its basic problems relating to fuel and waste disposal and continues to encounter unforeseen costs. The Report acknowledges that with time, new renewable generation could replace the energy from Diablo Canyon and SONGS. The only major obstacle to a change-over to renewables appears to be concerns about baseload characteristics.

It is time for further study to specifically model power generation options that include a mix of natural gas fired plants

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and renewables to see if they aren't a better option than continued operation of Diablo Canyon and SONGS. The study should include total life-cycle costs and benefits.

PG&E is currently exploring siting and building a Tidal and Wave Power facility on the California coastline. Several large-scale solar facilities in San Luis Obispo County have recently been announced. Natural gas lines are already available at Diablo Canyon. It is therefore reasonable to recommend the study of replacing at least Diablo Canyon nuclear power generation with a 1000 MW combined cycle gas-fired plant in tandem with two 500 MW solar thermal plants or with tidal and wave power facilities. By combining the natural gas-power option with renewables, base load can be met, costs controlled, and risks to health and safety avoided.